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[Page 76106-76109]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-CE-33-AD; Amendment 39-12978; AD 2002-25-03]

RIN 2120-AA64

Airworthiness Directives; Pilatus Britten-Norman Limited BN-2A and BN2A Mk. III Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes Airworthiness Directive (AD) 97-14-01, which currently applies to all Pilatus Britten-Norman Limited (Pilatus Britten-Norman) BN-2A and BN2A Mk. III series airplanes. AD 97-14-01 requires repetitively inspecting the left-hand rudder bar assembly for cracks, measuring the slider tube unit wall thickness, and modifying the rudder bar assembly by installing a slider tube unit of improved design as a terminating action for the repetitive inspections. AD 97-14-01 resulted from mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for the United Kingdom. Reports of cracks being found on the right-hand rudder bar assembly and the inadvertent omission of requiring inspection of the rudder pedal beams prompted this action. This AD retains the requirements of AD 97-14-01 and requires inspections of the right-hand rudder bar assembly and each rudder pedal beam. The actions specified by this AD are intended to prevent failure of the pilot's and co-pilot's rudder bar assemblies, which could result in loss of control of the airplane during landing operations.

DATES: This AD becomes effective on January 31, 2003.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of January 31, 2003.

ADDRESSES: You may get the service information referenced in this AD from B-N Group Limited, Bembridge, Isle of Wight, United Kingdom PO35 5PR; telephone: +44 (0) 1983 872511; facsimile: +44 (0) 1983 873246. You may view this information at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-CE-33-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Discussion

Has FAA Taken Any Action to This Point?

Reports of failure of the pilot's rudder bar caused FAA to issue AD 97-14-01 on all Pilatus Britten-Norman BN-2A and BN2A Mk. III series airplanes. Fractures of the central pillar/slider tube adjacent to the welded transverse lugs caused the pilot's rudder bar to fail. AD 97-14-01, Amendment 39-10058 (62 FR 35670, July 2, 1997), currently requires the following:

–Repetitively inspecting the left-hand rudder bar assembly for cracks;
–Measuring the slider tube unit wall thickness; and
–Modifying the rudder bar assembly by installing a slider tube unit of improved design as a terminating action for the repetitive inspections.

What Events Have Happened Since AD 97-14-01 To Cause This AD?

The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom, recently notified FAA of the need to change AD 97-14-01. The CAA reports that fractures in the central pillar/slider tube adjacent to the welded transverse lugs have been found on the co-pilot's (or dual) rudder bar assembly. These reports prompted a need to require inspections of the right-hand rudder bar assembly in addition to the left-hand rudder bar assembly. We also realized we inadvertently omitted from AD 97-14-01 repetitive inspections of the rudder pedal beam as specified in Britten-Norman Service Bulletin No. BN-2/SB. 56, Issue 2, dated February 13, 1978.

What Is the Potential Impact if FAA Took No Action?

This condition, if not corrected, could result in failure of the pilot's and co-pilot's rudder bar assemblies. Such failure could result in loss of control of the airplane during landing operations.

Has FAA Taken Any Action to This Point?

We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to all Pilatus Britten-Norman BN-2A and BN2A Mk. III series airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on September 18, 2002 (67 FR 58734). The NPRM proposed to supersede AD 97-14-01 with a new AD that would retain the actions of AD 97-14-01 and require inspections of the right-hand (co-pilot's) rudder bar assembly and the rudder pedal beams.

Was the Public Invited To Comment?

The FAA encouraged interested persons to participate in the making of this amendment. We did not receive any comments on the proposed rule or on our determination of the cost to the public.

FAA's Determination

What Is FAA's Final Determination on This Issue?

After careful review of all available information related to the subject presented above, we have determined that air safety and the public interest require the adoption of the rule as proposed except for minor editorial corrections. We have determined that these minor corrections:

–Provide the intent that was proposed in the NPRM for correcting the unsafe condition; and
–Do not add any additional burden upon the public than was already proposed in the NPRM.

Cost Impact

How Many Airplanes Does This AD Impact?

We estimate that this AD affects 113 airplanes in the U.S. registry.

What Is the Cost Impact of This AD on Owners/Operators of the Affected Airplanes?

We estimate the following costs to accomplish the inspection:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
6 workhours x $60 = $360	No parts required	$360	$360 x 113 = $40,680.

We estimate the following costs to accomplish any necessary replacements that will be required based on the results of the inspection. We have no way of determining the number of airplanes that may need such replacement:

Labor cost	Parts cost	Total cost per airplane
10 workhours x $60 = $600	$1,300	$600 + $1,300 = $1,900.

Compliance Time of This AD

What Will Be the Compliance Time of This AD?

The compliance time of this AD is based on number of landings rather than hours time-in-service (TIS).

Why Is the Compliance Time Presented in Landings Instead of Hours Time-in-Service?

The reason for this type of compliance is that the area that is showing fatigue is the pilot's and co-pilot's rudder bar assemblies and pillar/slider tube unit. This area of the airplane is used during the landing operation. Furthermore, the stress and fatigue is greater in the thinner gauged metal slider tube unit upon landing. We will use the number of landings as the compliance time for this AD.

Since airplane operators are not required to keep track of landings, we will provide a method of calculating hours TIS into landings.

Regulatory Impact

Does This AD Impact Various Entities?

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

Does This AD Involve a Significant Rule or Regulatory Action?

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by removing Airworthiness Directive (AD) 97-14-01, Amendment 39-10058 (62 FR 35670, July 2, 1997), and by adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.airweb.faa.gov/rgl"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-25-03 Pilatus Britten-Norman Limited: Amendment 39-12978; Docket No. 2002-CE-33-AD; Supersedes AD 97-14-01, Amendment 39-10058.

(a) *What airplanes are affected by this AD?* This AD affects the Models BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN2A MK. III, BN2A MK. III-2, and BN2A MK. III-3 airplanes, all serial numbers, that are certificated in any category.

(b) *Who must comply with this AD?* Anyone who wishes to operate any of the airplanes identified in paragraph (a) of this AD must comply with this AD.

(c) *What problem does this AD address?* The actions specified by this AD are intended to prevent failure of the pilot's and co-pilot's rudder bar assemblies, which could result in loss of control of the airplane during landing operations.

(d) *What actions must I accomplish to address this problem?* To address this problem, you must accomplish the following:

(1) Right-hand and left-hand slider tube and vertical pillar of the rudder bar. Within 500 landings after the last inspection required by AD 97-14-01 or the next 100 landings after January 31, 2003 (the effective date of this AD), whichever occurs later, inspect (visually and using a dye penetrant method) the left-hand and right-hand slider tube and vertical pillar of the rudder bar unit for cracks and measure the slider tube wall to determine thickness. Accomplish this inspection and follow-up actions below in accordance with the instructions specified in B-N Group Ltd. Service Bulletin Number SB 111, Issue 2, dated April 1, 2002 (Part of this accomplishment is the incorporation of Britten-Norman Service Bulletin No. BN-2/SB. 56, Issue 2, dated February 13, 1978; and Britten-Norman Service Bulletin No. BN-2/SB. 111, Issue 1, dated October 25, 1977):

If	Then	When
(i) No cracks are found during the inspection required in paragraph (d)(1) of this AD and the slider tube wall thickness is 0.056-inch (17 s.w.g.):	Repetitively inspect the left-hand and right-hand slider tube and vertical pillar of the rudder bar unit and install Modification NB/ M/948, part number (P/N) NB–45–A1–2975 or FAA-approved equivalent part number, on the left-hand and right-hand slider tube and vertical pillar of the rudder bar unit. When this modification is incorporated, the repetitive inspections in that area may be terminated.	Repetitively inspect at intervals not to exceed 500 landings after the initial inspection required in paragraph (d)(1) of this AD. Incorporate the modification upon the accumulation of 5,000 landings after August 18, 1997 (the effective date of AD 97–14–01) or within the next 500 landings after January 31, 2003 (the effective date of this AD), whichever occurs later (unless any crack(s) is/are found during an inspection).

(ii) No cracks are found during the inspection required in paragraph (d)(1) of this AD and the slider tube wall thickness is 0.036-inch (20 s.w.g.):	Repetitively inspect the left-hand and right-hand slider tube and vertical pillar paragraph of the rudder bar unit and install Modification NB/M/948, part number (P/N) NB–45–A1–2975 or FAA-approved equivalent part number, on the left-hand and right-hand slider tube and vertical pillar of the rudder bar unit. When this modification is incorporated, the repetitive inspections in that area may be terminated.	Repetitively inspect at intervals not to exceed 250 landings after the initial inspection. Incorporate the modification upon the accumulation of 2,500 landings after August 18, 1997 (the effective date of AD 97–14–01) or within the next 250 landings after January 31, 2003 (the effective date of this AD), whichever occurs later (unless any crack(s) is/are found during an inspection).
(iii) If any crack(s) is/are found during any inspection on the left-hand or right-hand slider tube and vertical pillar of the rudder bar unit:	Install Modification NB/M/948, P/N NB–45– A1–2975 or FAA-approved equivalent part number, on the cracked slider tube and vertical pillar of the rudder bar unit. When this modification is incorporated, the repetitive inspections in that area may be terminated.	Prior to further flight after the inspection where the crack(s) is/are found.

(2) As of January 31, 2003 (the effective date of this AD), only install rudder bar assemblies that incorporate Modification NB/M/948.

(3) Rudder pedal beams. Accomplish the following on the rudder pedal beams:

Action	Compliance	Procedures
(i) Inspect (visually and using a dye penetrant inspection method) each rudder pedal beam for cracks and replace any cracked beam with a P/N NB–45–C–2153 (Post Mod No. BB/M/341) rudder pedal beam.	Inspect within the next 100 landings after January 31, 2003 (the effective date of this AD) and thereafter at intervals not to exceed 500 landings. Replace prior to further flight after the inspection where any crack(s) is/ are found. Continue with repetitive inspection intervals.	In accordance with Britten-Norman Service Bulletin No. BN–2/SB. 56, Issue 2, dated February 13, 1978.
(ii) Only install P/N NB–45–C–2153 (Post Mod No. BB/M/341) rudder pedal beams.	As of January 31, 2003 (the effective date of this AD).	Not Applicable.

Note 1: If operators have not recorded the number of landings, the landings can be calculated by multiplying 3 landings per 1 hour TIS.

(e) *Can I comply with this AD in any other way?*

(1) You may use an alternative method of compliance or adjust the compliance time if:

(i) Your alternative method of compliance provides an equivalent level of safety; and

(ii) The Manager, Standards Office, Small Airplane Directorate, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Standards Office.

(2) Alternative methods of compliance approved in accordance with AD 97-14-01, which is superseded by this AD, are not approved as alternative methods of compliance with this AD.

Note 2: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) *Where can I get information about any already-approved alternative methods of compliance?* Contact Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

(g) *What if I need to fly the airplane to another location to comply with this AD?* The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) *Are any service bulletins incorporated into this AD by reference?* Actions required by this AD must be done in accordance with B-N Group Ltd. Service Bulletin Number SB 111, Issue 2, dated April 1, 2002; and Britten-Norman Service Bulletin No. BN-2/SB. 56, Issue 2, dated February 13, 1978. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You may get copies from B-N Group Limited, Bembridge, Isle of Wight, United Kingdom PO35 5PR; telephone: +44 (0) 1983 872511; facsimile: +44 (0) 1983 873246. You may view copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(i) *Does this AD action affect any existing AD actions?* This amendment supersedes AD 97-14-01, Amendment 39-10058.

Note 3: The subject of this AD is addressed in B-N Group Ltd. Service Bulletin Number SB 111, Issue 2, dated April 1, 2002. This service bulletin is classified as mandatory by the United Kingdom Civil Aviation Authority (CAA).

(j) *When does this amendment become effective?* This amendment becomes effective on January 31, 2003.

Issued in Kansas City, Missouri, on December 2, 2002.
Michael Gallagher,
Manager, Small Airplane Directorate, Aircraft Certification Service.
[FR Doc. 02-31128 Filed 12-10-02; 8:45 am]
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